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EXPEDITED PROCEDURE UNDER 37 C.F.R. § 1.116

JUN 10 2003

U.S. Patent Application Serial No. 09/204,523

Attorney Docket No. 97-823RCE1

Technology Center 2600

REMARKS

In the final Office Action, the Examiner maintained the rejection of claims 1-3 under 35 U.S.C. § 103(a) as unpatentable over CLARK (U.S. Patent No. 5,383,112) in view of NOURI et al. (U.S. Patent No. 6,088,816), and further in view of RITCHIE, JR. et al. (U.S. Patent No. 5,790,523); the rejection of claims 4-8 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view of NOURI et al. and RITCHIE, JR. et al., and further in view of GARDNER et al. (U.S. Patent No. 5,583,995); the rejection of claims 17 and 18 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view of DAVIS et al., and further in view of RITCHIE, JR. et al.; the rejection of claims 19 and 20 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view of DAVIS et al. and RITCHIE, JR. et al., and further in view of NOURI et al.; and the rejection of claims 21-25 and 27 under 35 U.S.C. § 103(a) as unpatentable over CLARK in view of DAVIS et al. and RITCHIE, JR. et al., and further in view of GARDNER et al. Applicant respectfully traverses these rejections. Claims 1-8, 17-25, and 27 remain pending.

In the final Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of NOURI et al., and further in view of RITCHIE, JR. et al. Applicant continues to traverse this rejection.

Applicant's claim 1 recites a schedule management system arranged to receive and validate a schedule, and a content manager system arranged to monitor and control the loading of assets into a video server according to the validated schedule, where the assets include video content scheduled for staggered transmission to subscribers of a near-video-on-demand (NVOD) system using a plurality of channels, where the plurality

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of channels includes a test channel dedicated solely for testing a selected asset, and where the content manager includes a graphical user interface configured to allow an administrator to view the selected asset using the test channel to verify the integrity of the selected asset loaded into the video server. Applicant respectfully submits that CLARK, NOURI et al., and RITCHIE, JR. et al., whether taken alone or in any reasonable combination, do not disclose this combination of features.

For example, CLARK, NOURI et al., and RITCHIE, JR. et al. do not disclose a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system. The Examiner admitted that CLARK and NOURI et al. do not disclose this feature (final Office Action, pg. 11) and relied on col. 25, line 62 to col. 26, line 15, and col. 28, lines 52-60, of RITCHIE, JR. et al. for allegedly disclosing this feature (final Office Action, pg. 12). Applicant respectfully submits that these sections of RITCHIE, JR. et al. do not disclose or suggest the recited test channel.

Col. 25, line 62 to col. 26, line 16, of RITCHIE, JR. et al. discloses:

FIG. 13 is a block diagram illustrating a test facility located at the headend interface unit (HIU) of the broadband communications system. Referring now to FIGS. 3C, 7 and 13, a test control module (TCM) 800 is connected to multiple upstream receiver modules (URMs) 802 and downstream transmitter modules (DTMs) 804. The TCM 800 is connected to each URM 802, also called a demodulator, via an upstream test link 806, which carries radio frequency (RF) test signals during an upstream receiver test. Each DTM 804 is connected to the TCM 800 via the combination of a test RF combiner 808 and a downstream test link 810. The combiner 808 operates to combine the transmit signals output by each DTM 804 and outputs the resultant signal to the TCM 800 via the downstream test link 810 during a downstream transmitter test. The TCM 800, the URMs 802, and the DTMs 804 are connected via bidirectional data communication



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links 814 to an RF control module (RCM) 812.

The URMs 802, the DTMs 804, and the RCM 812 represent functions conducted by components of the headend interface unit (HIU) 301 shown in FIGS. 7 and 9.

While this section of RITCHIE, JR. et al. appears to disclose an upstream test link 806 and a downstream test link 810, these test links 806 and 810 do not test a selected asset that includes video content scheduled for staggered transmission to subscribers of a NVOD system, as recited in Applicant's claim 1. Instead, RITCHIE, JR. et al. specifically discloses that these test links 806 and 810 are used for testing an upstream receiver and a downstream transmitter, respectively, through the use of radio frequency test signals.

Col. 28, lines 52-60, of RITCHIE, JR. et al. discloses:

With respect to downstream test operations, the test system can support an evaluation of the quality of the downstream transmit signal output by a selected modulator at the headend. In the event that the downstream signal received by the test system, does not satisfy a predetermined quality threshold, a determination can be made that the selected modulator has entered a fault state. Based on this determination, a replacement unit can be substituted for the failed modulator.

This section of RITCHIE, JR. et al. merely discloses the testing of a modulator at the head-end. This section of RITCHIE, JR. et al. does not disclose or suggest, however, a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system.

In the final Office Action, the Examiner points for the first time to col. 26, lines 1-20, and col. 27, lines 12-25, of RITCHIE, JR. et al. for allegedly disclosing the recited test channel. Applicant submits that these sections of RITCHIE, JR. et al. do not disclose

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or suggest a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system.

Col. 26, lines 1-20, of RITCHIE, JR. et al. discloses:

The TCM 800 is connected to each URM 802, also called a demodulator, via an upstream test link 806, which carries radio frequency (RF) test signals during an upstream receiver test. Each DTM 804 is connected to the TCM 800 via the combination of a test RF combiner 808 and a downstream test link 810. The combiner 808 operates to combine the transmit signals output by each DTM 804 and outputs the resultant signal to the TCM 800 via the downstream test link 810 during a downstream transmitter test. The TCM 800, the URMs 802, and the DTMs 804 are connected via bidirectional data communication links 814 to an RF control module (RCM) 812.

The URMs 802, the DTMs 804, and the RCM 812 represent functions conducted by components of the headend interface unit (HIU) 301 shown in FIGS. 7 and 9. Specifically, the URMs 802 correspond to the reverse demodulators 330a-330n; the DTMs 804 correspond to the forward modulators 320a-320n; and the RCM 812 corresponds to the processing unit 308.

This section of RITCHIE, JR. et al. discloses that TCM 800 connects to each URM 802 via an upstream test link 806 and each DTM 804 connects to TCM 800 via a test RF combiner 808 and downstream test link 810. Contrary to the Examiner's allegation, this section of RITCHIE, JR. et al. does not disclose or suggest a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system.

Col. 27, lines 12-25, of RITCHIE, JR. et al. discloses that DTM 804 transmits downstream signals to customer interface units (CIUs) 400 via CATV network 12. This section of RITCHIE, JR. et al. does not disclose or suggest a test channel dedicated solely

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to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system.

The Examiner further alleged with respect to these sections of RITCHIE, JR. et al. that "[t]he downstream transmitter module, DTM 804 corresponds with the transmission (server) assets disclosed in both Clark & Nouri. Thus test line 810 reads on the claimed channel dedicated solely to the testing of a selected asset and meets the claimed subject matter" (final Office Action, pg. 4). Applicant disagrees.

Contrary to the Examiner's position, RITCHIE, JR. et al. does not disclose or suggest that DTM 804 corresponds to transmission assets or, as recited in Applicant's claim 1, to video content scheduled for staggered transmission to subscribers of a NVOD system. Instead, RITCHIE, JR. et al. merely discloses that the DTM 804 transmits downstream data to customer interface units. See, for example, col. 27, lines 26-40, of RITCHIE, JR. et al. that supports Applicant's position. If this rejection is maintained, Applicant respectfully requests the Examiner specifically point out where in RITCHIE, JR. et al. it is disclosed that the downstream transmission module 804 includes video content scheduled for staggered transmission to subscribers of a NVOD system.

The Examiner further alleged that "Ritchie unambiguously teaches that the test links 806 and 810 are only used for testing the URM 802 and DTM 804, respectively" (final Office Action, page 5). The Examiner also alleged that that the "combination of Clark (col. 4, lines 30-45; col. 5, lines 10-24) & Nouri (col. 3, lines 45-65; col. 6, lines 51-67) is relied upon to teach testing 'a selected asset that includes video content for staggered transmission to subscribers of a NVOD system' using a graphical user

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interface" (final Office Action, page 3). Applicant strenuously objects to the Examiner's piecemeal examination of the test channel feature of claim 1.

Claim 1 recites a test channel dedicated solely to testing a selected asset, where the asset includes video content scheduled for staggered transmission to subscribers of a NVOD system. The Examiner points to col. 25, line 62 to col. 26, line 15, and col. 28, lines 52-60, of RITCHIE, JR. et al. as allegedly disclosing a test channel dedicated solely for testing and col. 4, lines 30-45, and col. 5, lines 10-24, of CLARK and col. 3, lines 45-65, and col. 6, lines 51-67, of NOURI et al. as allegedly disclosing testing a selected asset that includes video content for staggered transmission to subscribers of a NVOD system. Applicant's claim 1, however, recites a test channel dedicated solely to testing a selected asset, where the asset includes video content scheduled for staggered transmission to subscribers of a NVOD system.

Instead of addressing this entire feature, the Examiner appears to be breaking the feature down into parts and pointing to sections of RITCHIE, JR. et al., CLARK, and NOURI et al. that allegedly disclose each of the individual parts. That is, instead of addressing a test channel dedicated solely to testing a selected asset, where the asset includes video content scheduled for staggered transmission to subscribers of a NVOD system, the Examiner points to sections of RITCHIE, JR. et al. that allegedly discloses a test channel and sections of CLARK and NOURI et al. that allegedly disclose testing an asset that includes video content scheduled for staggered transmission to subscribers of a NVOD system, but fails to specifically point out where in RITCHIE, JR. et al., CLARK,

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or NOURI et al. this entire feature is disclosed. Applicant objects to the piecemeal examination of this feature.

Applicant further submits that, contrary to the Examiner's allegation, NOURI et al. in no way discloses or suggests testing an asset that includes video content scheduled for staggered transmission to subscribers of a NVOD system. The Examiner pointed to col. 3, lines 45-65, and col. 6, lines 51-67, of NOURI et al. for allegedly disclosing testing an asset that includes video content scheduled for staggered transmission to subscribers of a NVOD system using a graphical user interface. These sections of NOURI et al., however, are in no way related to this feature. In fact, NOURI et al. is totally unrelated to a NVOD system. To the contrary, NOURI et al. is directed to a fault tolerant method of obtaining and displaying or updating the status of server components (abstract). Therefore, the Examiner's rationale regarding the combination of CLARK, NOURI et al., and RITCHIE, JR. et al. teaching a test channel dedicated solely to testing a selected asset, where the asset includes video content scheduled for staggered transmission to subscribers of a NVOD system is flawed.

Even assuming, for the sake of argument, that RITCHIE, JR. et al. discloses the recited test channel, as alleged by the Examiner, Applicant submits that one skilled in the art at the time of Applicant's invention would not have been motivated to combine the disclosures of CLARK, NOURI et al., and RITCHIE, JR. et al. in the manner suggested by the Examiner, absent impermissible hindsight.

An important concept that should be noted is that in order to reach a proper determination under 35 U.S.C. § 103, the Examiner must step backward in time and into

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the shoes of a hypothetical "person of ordinary skill in the art" at a time when Applicant's invention was unknown and just before it was made. With this concept in mind, it appears that the Examiner believes that it is conceivable that, having the CLARK document, which is drawn to inventory management (abstract), one skilled in the art at the time Applicant's invention was made, having no knowledge of Applicant's invention, would have combined the CLARK document with the NOURI et al. document, drawn to a fault tolerant method of obtaining and displaying or updating the status of server components (abstract), and the RITCHIE, JR. et al. document, drawn to a test system for evaluating the operating state of a head-end of a broadband communications network that communicates telephony signals between a telephony system and subscribers of communications services (abstract), to come up with Applicant's invention. Applicant submits that one skilled in the art at the time of Applicant's invention would not have been motivated, absent impermissible hindsight, to combine these non-analogous inventions (i.e., inventory management, a fault tolerant method of updating the status of server components, and a system for evaluating the operating state of a network head-end) in the manner suggested by the Examiner.

The Examiner alleged that, with respect to motivation, "the need for bandwidth allocation is noted" and relied on col. 5, lines 1-3, of RITCHIE, JR. et al. for providing this motivation (final Office Action, pg. 4). Col. 4, line 54, to col. 5, line 3, of RITCHIE, JR. et al. discloses the allocation of an unused portion of the forward band of a cable network to individual subscriber telephony signals. Contrary to the Examiner's allegation, this section of RITCHIE, JR. et al. in no way discloses or suggests the

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allocation of bandwidth to a test channel that is dedicated solely to testing a selected asset, where the asset includes video content scheduled for staggered transmission to subscribers of a NVOD system.

The Examiner further alleged that "as discussed at col. 6, lines 21-32, one of ordinary skill in the art at the time the invention was made, would have readily recognized the benefit of dedicated test channels, at least for the advantage of overcoming problems known to be associated with re-allocating bandwidth" (final Office Action, pg. 4). This section of RITCHIE, JR. et al. in no way supports the Examiner's allegation.

Col. 6, lines 21-32, of RITCHIE, JR. et al. discloses:

For a downstream test, the test system evaluates the operating state of a selected modulator at the headend in response to receiving a downstream test signal generated by the selected modulator. The test system outputs a detected downstream test signal in response to the downstream test signal. In turn, the test system conducts error measurements based on the information of the detected downstream test signal to support an evaluation of the operating state of the selected modulator. A database containing records of the operating state of modulators at the headend can be updated based on these error measurements.

This section of RITCHIE, JR. et al. discloses testing of modulators using a downstream test signal. Contrary to the Examiner's allegation, this section of RITCHIE, JR. et al. in no way relates to allocating (or reallocating) bandwidth.

The Examiner also alleged that "one of ordinary skill in the art would have recognized the notoriously well known technique or reserving or allocating a channel for a specific purpose, as taught by Ritchie, at least for the desirable improvement of ensuring the communication of specified data, since its

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bandwidth or channel is already allocated" (final Office Action, pg. 4). While the Examiner's reasoning is difficult to understand (e.g., why providing a dedicated channel would in any way ensure the communication of specified data), Applicant submits that none of the references of record disclose a problem with ensuring the communication of specified data.

The Examiner further alleged that "at the time the invention was made, single purpose or dedicated channels was not a patentably distinct feature" (final Office Action, pg. 5). The Examiner fails, however, to provide any evidence as to why the feature of a test channel that is dedicated solely to testing a selected asset, where the asset includes video content scheduled for staggered transmission to subscribers of a NVOD system, which is specifically recited in Applicant's claim 1, is not a patentably distinct feature. Applicant submits that this allegation is without merit. Applicant requests that the Examiner either provide support for this allegation or withdraw it.

The Examiner alleged in the final Office Action that "all three of the instant references are directed to an environment of transmitting video/visual data from a central location to a plurality of viewers," "each reference discusses some aspect of testing a selected device that transmits video/visual data to a plurality of clients," "both Nouri (col. 3, lines 45-55; col. 6, lines 54-62) and Ritchie (col. 28, lines 54-67 thru col. 28, lines 1-15) provide a solution for non-properly functioning server assets using various fault tolerant algorithms, such as for instance replacing the faulty asset with a functioning asset," and "one of ordinary skill in the art at the time the invention was made, would

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have been motivated to at least periodically test the status of video servers/assets that transmit video data to a plurality of clients for the desirable benefit of efficiently operating NVOD systems" (final Office Action, pp. 7-8). Applicant submits that the mere fact that CLARK, NOURI et al., and RITCHIE, JR. et al. may disclose the transmitting of data from a central location to a plurality of devices does not lead one to conclude that one skilled in the art at the time of Applicant's invention would have combined CLARK, NOURI et al., and RITCHIE, JR. et al. in the manner suggested by the Examiner, absent impermissible hindsight.

As set forth in detail above, NOURI et al. is directed to a fault tolerant method of obtaining and displaying or updating the status of server components. NOURI et al. is in no way directed to NVOD systems, let alone supplying video to viewers, as alleged by the Examiner, and one skilled in the art would not seek to combine this non-analogous document with the disclosures of CLARK or RITCHIE, JR. et al. absent impermissible hindsight.

The Examiner further alleged that "one of ordinary skill in the art would have readily recognized the benefit of maintaining separate channels/links for the transmission of test RF signals and main RF signals, at least in order to conserve a certain portion of the bandwidth for distribution of the video to clients" and "using a single channel for testing enables to tested asset to be continuously tuned to a single frequency, avoiding the need to re-tune or re-scan and search for the test signal" (final Office Action, pg. 8).

Applicant submits that the Examiner appears to be providing motivation as to why one of ordinary skill in the art would incorporate a dedicated channel into the RITCHIE, JR. et

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al. system instead of the CLARK or NOURI et al. systems, since neither CLARK nor NOURI et al. discloses transmitting radio frequency (RF) signals. Moreover, since CLARK and NOURI et al. do not disclose or suggest the transmission of RF signals, there would be no need to re-tune or re-scan to search for a test signal in the CLARK or NOURI et al. systems. Therefore, the Examiner's allegations above do not provide the necessary motivation for incorporating RITCHIE, JR. et al.'s alleged teaching of a test channel that is dedicated solely to testing a selected asset, where the asset includes video content scheduled for staggered transmission to subscribers of a NVOD system, into the CLARK system.

Since CLARK, NOURI et al., and RITCHIE, JR. et al. do not disclose a test channel dedicated solely to testing a selected asset, where the asset includes video content scheduled for staggered transmission to subscribers of a NVOD system, these documents cannot disclose the content manager system including a graphical user interface that allows an administrator to view the selected asset using the test channel to verify the integrity of the selected asset loaded into the video server, as also recited in claim 1. The Examiner relied on NOURI et al. for allegedly disclosing this feature (final Office Action, pg. 11). While NOURI et al. appears to disclose that an administrator may view status information of server components (abstract, lines 1-4), NOURI et al. does not disclose or suggest the administrator having the capability to view a selected asset using a test channel that is dedicated solely to testing to verify the integrity of the selected asset loaded into a video server, as recited in claim 1. In fact, NOURI et al. does not disclose or suggest a video server.

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For at least the foregoing reasons, Applicant respectfully submits that claim 1 is patentable over CLARK, NOURI et al., and RITCHIE, JR. et al., whether taken alone or in any reasonable combination. Applicant further submits that claims 2 and 3, which depend from claim 1, are patentable over CLARK, NOURI et al., and RITCHIE, JR. et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1.

Claims 4-8 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of NOURI et al. and RITCHIE, JR. et al., and further in view of GARDNER et al. Applicant respectfully traverses this rejection.

Applicant submits that the disclosure of GARDNER et al. does not remedy the deficiencies set forth above with respect to the disclosures of CLARK, NOURI et al., and RITCHIE, JR. et al. Since claims 4-8 depend from claim 1, Applicant submits that claims 4-8 are patentable over CLARK, NOURI et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 1. Moreover, these claims are patentable over CLARK, NOURI et al., RITCHIE, JR. et al., and GARDNER et al. for reasons of their own.

For example, Applicant's claim 4 recites a head-end configuration manager that is responsive to commands from an administrator and arranged to track configuration parameters of a head-end of the NVOD system, where the configuration parameters determine NVOD channel allocations. The Examiner appears to rely on col. 1, lines 58-

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65, col. 4, lines 14-58, col. 5, lines 21-40, col. 11, lines 61-68, and col. 13, lines 42-55, of GARDNER et al. for allegedly disclosing this feature (final Office Action, pg. 13).

Col. 1, line 58 to col. 2, line 1, of GARDNER et al. discloses:

Any video-on-demand system providing multiple data streams should preferably be able to detect and correct errors caused by failures or data aberrations (e.g., disk drive failures or parity errors). Thus, hardware and/or data redundancy and various error correcting schemes are needed to ensure data integrity and availability. However, the use of a "brute-force" disk mirroring scheme or other similarly unsophisticated method is unacceptably expensive in a video-on-demand system, because the amount of data storage could easily extend into terabytes of data, currently out of the price range for many applications.

Contrary to the Examiner's allegation, this section of GARDNER et al. does not disclose or suggest a head-end configuration manager that tracks configuration parameters of a head-end of a NVOD system. In fact, this section of GARDNER et al. in no way relates to tracking configuration parameters.

Col. 4, lines 14-59, of GARDNER et al. discloses:

Viewing each media server MS1 through MS3 as a resource which may be used to supply data in the system, each media server is able to provide data from its associated disks at a sustained data rate which is dependent on a number of factors.

First, each media server generally comprises a CPU, memory, internal data bus, and one or more network interfaces across which all data must generally flow when retrieved from the disks and supplied to the network. Thus, each media server can be viewed as a node having a maximum data bandwidth which cannot be exceeded on a sustained basis. In other words, regardless of the number of disks and controllers within the media server, it has a maximum output data rate which cannot be exceeded. The bandwidth of each media server can be determined empirically by attempting to retrieve large quantities of data at a sustained rate using various I/O configurations. (It will be noted that configurations are possible in which the computer itself presents essentially no bottleneck, and the invention is not intended to be limited in this respect). Each node

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is indicated in FIG. 1 with the designation "N" followed by a number (e.g., N1 is a node corresponding to the data "pipe" through which media server MS1 can supply data).

Second, each media server may comprise one or more disk controllers, each of which typically has a maximum sustainable data rate at which it can provide data retrieved from all the disks it controls. For example, SCSI controllers have a typical maximum sustainable data rate of about 4 megabytes per second (4 MB/sec), regardless of how many disks are controlled by that SCSI controller. Although media server MS1 has two disk controllers a1 and a2, the bandwidth of the media server as a whole may be lower than the combined bandwidth of the two controllers, because the node itself may have a lower sustainable data rate than that of the combined controllers. Typically, each SCSI controller can control up to 7 disks, although the invention is not limited in this respect and any type of disk controller or other I/O device can be used. For the sake of clarity, a discussion of separate SCSI "chains" has been omitted, it being understood that an I/O hierarchy may exist within each controller.

Third, each disk controller may control one or more disks, each disk having a maximum sustainable data rate at which it can provide data in read or write operations. Thus, if disk d1 and d2 each can read data at a sustained rate of 3 MB/sec, the maximum data available from these combined disks would be 6 MB/sec.

Similar to the section above, this section of GARDNER et al. does not disclose or suggest a head-end configuration manager that tracks configuration parameters of a head-end of a NVOD system.

Col. 5, lines 21-40, of GARDNER et al. discloses:

The foregoing considerations, which are factored into how a computer system should be configured, can be advantageously used to determine where and how data blocks should be distributed in the system for a particular data file in order to optimize data access and guarantee isochronous data streams for applications such as video-on-demand.

The inventors of the present invention have discovered that using a data storage and retrieval scheme which takes into account the bandwidth characterizations in a system such as that shown in FIG. 1 results in substantial increases in efficiency which can significantly reduce the

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number of devices which must be assembled to provide the large data storage capacity needed for video on demand and other applications. Such a scheme can also guarantee consumers of the stored data that they will be able to store and retrieve data at a specified bandwidth at delivery time, thus ensuring that an isochronous data stream can be provided. This is particularly important in a video-on-demand system, because different multiple isochronous video streams must be provided in varying configurations as movies are started, stopped, fast forwarded, and the like over the network.

This section of GARDNER et al. discloses the use of a data storage and retrieval scheme for video on demand. This section of GARDNER et al. does not disclose or suggest, however, a head-end configuration manager that is responsive to commands from an administrator and arranged to track configuration parameters of a head-end of the NVOD system, where the configuration parameters determine NVOD channel allocations. In fact, this section of GARDNER et al. in no way relates to a head-end configuration manager.

Col. 11, line 61 to col. 12, line 2, of GARDNER et al. discloses

[a] primary objective of the above-described scheme is to cause data to be stored in each media server in a manner which balances the anticipated load when the data is retrieved in a sequential manner. Thus, for example, if disk d2 can support a higher effective data rate for reading data than disk d1, then more read operations should be directed to disk d2 at retrieval time in order to prevent 'under-use' of that disk compared to the slower disks.

This section of GARDNER et al. discloses the ability to store data in media servers in a way that balances the anticipated load. Applicant submits that this is different than tracking configuration parameters of a head-end of a NVOD system.

Col. 13, lines 42-55, of GARDNER et al. discloses:

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As shown in FIG. 6, each team of media servers preferably has associated therewith not only a total available bandwidth, but also a "currently allocated" portion of this total available bandwidth. That is, as requests are made to use portions of the available bandwidth associated with each team, a record is kept of how much bandwidth has been actually allocated to clients for that team. In this manner, the system can be guaranteed to deliver the requested bandwidth to clients without exceeding the limits of the system. By the same principle, use can effectively be made of all of the available bandwidth for a particular configuration, thus avoiding wasteful use of resources in the system. This guaranteed allocation of bandwidth will now be described.

This section of GARDNER et al. discloses the ability to allocate bandwidth from a group of media servers to clients that are requesting bandwidth. Applicant submits that this is different than tracking configuration parameters of a head-end of a NVOD system.

Further with respect to this feature, the Examiner alleged that "[a]gain it is pointed out that the problem of tracking the configuration of servers in a video distribution network was very well known at the time of the present invention. Likewise, the technique of bandwidth or channel allocation was also notoriously well known in the art, at the time the invention was made" (final Office Action, pp. 8-9). Regardless of the veracity of the Examiner's general allegations, these allegations fail to address the features of Applicant's claim 4 or Applicant's arguments that GARDNER et al. does not, contrary to the Examiner's allegations, disclose or suggest a head-end configuration manager that is responsive to commands from an administrator and arranged to track configuration parameters of a head-end of the NVOD system, where the configuration parameters determine NVOD channel allocations.

Even assuming, for the sake of argument, that GARDNER et al. discloses a head-end configuration manager that is responsive to commands from an administrator and

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arranged to track configuration parameters of a head-end of the NVOD system, where the configuration parameters determine NVOD channel allocations, as alleged by the Examiner, Applicant submits that one skilled in the art at the time of Applicant's invention would not have been motivated to combine the disclosures of CLARK, NOURI et al., RITCHIE, JR. et al., and GARDNER et al. in the manner suggested by the Examiner, absent impermissible hindsight.

Applicant's arguments above with respect to combining CLARK, NOURI et al., and RITCHIE, JR. et al. are equally applicable here. Applicant submits that one skilled in the art at the time Applicant's invention was made, having no knowledge of Applicant's invention, would not have been motivated to combine the CLARK document, drawn to inventory management, with the NOURI et al. document, drawn to a fault tolerant method of obtaining and displaying or updating the status of server components, the RITCHIE, JR. et al. document, drawn to a test system for evaluating the operating state of a head-end of a broadband communications network, and the GARDNER et al. system, drawn to a system for allocating a data file across a group of media servers, absent impermissible hindsight.

The Examiner's allegations on page 9 of the final Office Action regarding GARDNER et al. in no way addresses the fact that the Examiner has failed to provide the necessary motivation as to why one skilled in the art would have been motivated to combine the teachings of GARDNER et al. with CLARK, NOURI et al., RITCHIE, JR. et al.

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For at least these additional reasons, Applicant submits that claim 4 is patentable over CLARK, NOURI et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination.

Claims 17 and 18 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of DAVIS et al., and further in view of RITCHIE, JR. et al. Applicant respectfully traverses this rejection.

Claim 17 recites a feature similar to that given above with respect to claim 1. Applicant submits that the disclosure of DAVIS et al. does not remedy the deficiencies in the disclosures of CLARK and RITCHIE, JR. et al. noted above with respect to claim 1. Accordingly, Applicant submits that claim 17 is patentable over CLARK, DAVIS et al., and RITCHIE, JR. et al., whether taken alone or in any reasonable combination, for reasons similar to those given above with respect to claim 1. Applicant further submits that claim 18, which depends from claim 17, is patentable over CLARK, DAVIS et al., and RITCHIE, JR. et al. for at least the reasons given above with respect to claim 17.

Claims 19 and 20 were newly rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of DAVIS et al., and RITCHIE, JR. et al., and further in view of NOURI et al. Applicant respectfully traverses this rejection for the following reasons.

Claims 19 and 20 depend from claim 17. Applicant respectfully submits that the disclosure of NOURI et al. does not remedy the deficiencies in the disclosures of CLARK, DAVIS et al., and RITCHIE, JR. et al. set forth above with respect to claim 17. Accordingly, Applicant respectfully submits that claims 19 and 20 are patentable over

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CLARK, DAVIS et al., RITCHIE, JR. et al., and NOURI et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 17.

Applicant further submits that one skilled in the art at the time of Applicant's invention would not have been motivated, absent impermissible hindsight, to combine the disclosure of CLARK, which is drawn to inventory management, with the disclosures of DAVIS et al., which is drawn to a system that verifies electronic television program guide data, RITCHIE, JR. et al., which is drawn to a test system for evaluating the operating state of a head-end of a broadband communications network, and NOURI et al., which is drawn to a fault tolerant method of obtaining and displaying or updating the status of server components, since these disclosures are drawn to non-analogous inventions.

The final Office Action failed to address the above arguments. If this rejection is maintained, Applicant requests that the Examiner address these arguments.

Claims 21-25 and 27 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over CLARK in view of DAVIS et al. and RITCHIE, JR. et al., and further in view of GARDNER et al. Applicant respectfully traverses this rejection.

Applicant's claim 21 includes a feature similar to the features described above with respect to claim 1. Applicant respectfully submits that the disclosures of CLARK, DAVIS et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination, do not disclose verifying the integrity of an asset via a test channel that is dedicated solely to testing assets in the video server, as recited in claim 21.

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Even assuming, for the sake of argument, that the combination of CLARK, DAVIS et al., RITCHIE, JR. et al., and GARDNER et al. discloses the features of claim 21, Applicant submits that one skilled in the art at the time of Applicant's invention would not have been motivated to combine the disclosure of CLARK, which is drawn to inventory management, with the disclosures of DAVIS et al., which is drawn to a system that verifies electronic television program guide data, RITCHIE, JR. et al., which is drawn to a test system for evaluating the operating state of a head-end of a broadband communications network, and GARDNER et al., which is drawn to a system for allocating a data file across a group of media servers, since these documents are drawn to non-analogous inventions.

The final Office Action failed to address the above arguments. If this rejection is maintained, Applicant requests that the Examiner address these arguments.

For at least the foregoing reasons, Applicant respectfully submits that claim 21 is patentable over CLARK, DAVIS et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination. Applicant further submits that claims 22-25 and 27, which depend from claim 21, are patentable over CLARK, DAVIS et al., RITCHIE, JR. et al., and GARDNER et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 21. Moreover, these claims recite additional features not disclosed by CLARK, DAVIS et al., RITCHIE, JR. et al., and GARDNER et al.

For example, Applicant's claim 24 recites comparing asset information, comprising an asset return date, to the scheduling information comprising a scheduled

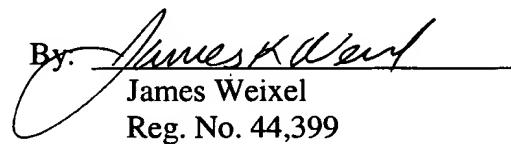
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play date and inhibiting playing of the asset if the scheduled play date is later than the asset return date. With respect to these features, the Examiner alleged that "Official Notice is taken that at the time the invention was made, it was well known to limit the viewing or playing of video on demand services to subscribers based on several parameters, including the timeliness of the data" (final Office Action, pg. 18). Applicant submits that the features of claim 24 are not well-known in the art and requests that the Examiner provide a reference to support the Examiner's allegation. See M.P.E.P. § 2144.03.

In view of the foregoing remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 07-2339 and please credit any excess fees to such deposit account.

Verizon Corporate Services Group Inc.

By: 
James Weixel
Reg. No. 44,399

Date: 6/4/2003

Verizon Corporate Services Group Inc.
600 Hidden Ridge, HQE03H01
Irving, Texas 75038
781/466-2220